



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,834	06/09/2006	Marcel Vos	104991-160608	1758

24964 7590 04/28/2009  
GOODWIN PROCTER LLP  
ATTN: PATENT ADMINISTRATOR  
620 Eighth Avenue  
NEW YORK, NY 10018

EXAMINER
----------

OJURONGBE, OLATUNDE S

ART UNIT	PAPER NUMBER
----------	--------------

1796

MAIL DATE	DELIVERY MODE
-----------	---------------

04/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### DETAILED ACTION

1. The amendment filed on 12/29/2008 has been entered. Claims 1-35 and 37-52 are pending.
2. Prior to issuance, the following errors in the application have to be corrected by the applicants.

### Abstract

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract recites "...a structural unit of the formula (I) (I) which process comprises the step of reacting; a polyacid of formula (II) (II) with a polyacyloxysilyl derivative of formula (III) (II) whilst removing the formed acid group(s) of formula (IV) and (V) and (VI),  $R_7Z(O)OH(IV)$ ,  $R_9Z(O)OH(V)$ ,  $R_8Z(O)OH(VI)$  from the system".

The presence of the underlined (I) and (II) in the disclosure makes the abstract confusing. Moreover, the underlined "which" and semicolon are wrongly placed in the disclosure, thereby making the statement grammatically wrong. The underlined "and" is redundant and should be replaced with a comma. Furthermore, it is unclear whether

Art Unit: 1796

$R_7Z(O)OH(IV)$ ,  $R_9Z(O)OH(V)$  and  $R_8Z(O)OH(VI)$  are the formed acid group(s) of formula (IV), (V) and (VI).

### ***Specification***

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Objections***

5. Claims 1, 21 and 26 are objected to because of the following informalities:

Claim 1, line 26 recites “and y represents a number of silyl ester repeat units from 2 to 100000”; since y also represents siloxy ester, the underlined statement should be deleted for simplicity purpose.

Claim 1, line 27 recites “which process comprises the step of reacting;”. The underlined “which” and semicolon are wrongly placed in the claim.

Claim 1, lines 35-38 recite “except R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>5</sub> in (III) are -O-Z(O)-R<sub>8</sub>, where R<sub>8</sub> is defined as in R<sub>7</sub> below, when the equivalent group in (I) is -O-Z(O)-L-, and R<sub>7</sub> is a hydrogen atom, an aralkyl, aryl, alkenyl, alkynyl, or alkyl group”. The above statement is grammatically wrong and makes the limitation confusing.

Claim 1, line 41 recites “whilst removing the formed acid group(s) of formula (IV) and (V) and (VI). The underlined “and” is redundant and should be replaced with a comma; “whilst” should be changed to “while”.

Claim 21 recites “wherein L represents an alkyl, aryl., alkenyl”, the period after aryl should be deleted from the claim.

Claim 26 recites “A process as claimed in claim 25”, for consistency purpose, this should be changed to “A process according to claim 25”. Furthermore, the period after decane should be deleted from the claim.

Appropriate corrections are required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 1-35 and 37-52** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 5-11 recite “wherein  $R_4$  and  $R_5$  may be hydroxyl or may be independently selected from....-L'-Si $R_4$ R $R_5$ R $R_{10}$ , -L'-(Si $R_4$ R $R_5$ L') $_n$ -Si $R_1$ R $R_2$ -, alkenyl, alkynyl, aralkyl or aralkyloxy radicals”; it is unclear what  $R_4$  and  $R_5$  are because the applicants use “may be” instead of “is” and include -L'-Si $R_4$ R $R_5$ R $R_{10}$  and -L'-(Si $R_4$ R $R_5$ L') $_n$ -Si $R_1$ R $R_2$  in the groups from which  $R_4$  and  $R_5$  can be selected. Furthermore, the underlined “or” should be “and”.

The examiner notes the use of "may..be" throughout claim 1, "may..be" should be changed to "is" wherever it appears in the claim. Since the term “may be” is not a definitive statement, and can include the possibility of “may not be” or “may be” other things.

Claim 1, line 11 recites “ $R_4$  and/or  $R_5$  may independently be an -O-Z(O)-L-group”, it is unclear what limitation the applicants try to set because -O-Z(O)-L- depicts a divalent group whereas according to formula (I),  $R_4$  and/or  $R_5$  are monovalent groups. Similar error occurs for the definition of  $R_1$  and  $R_2$  in the claim.

Claim 1 lines 18-22 recite “wherein L represents a hydrocarbyl or substituted hydrocarbyl group, wherein said substituted hydrocarbyl is substituted by one or more substituents independently selected from the group consisting....”, it is unclear what limitation the applicants try to set because the listed groups that follow this statement are monovalent groups, whereas L as depicted in formula (I) is divalent. While making

Art Unit: 1796

changes to correct this error, the applicants should note that formula (II) requires that L be monovalent.

Claim 1, line 22 recites “or a polymer with pendant acid groups”, it is unclear whether the polymer with pendant acid groups of the claim is an example of L or a substituent on the substituted hydrocarbyl group.

Claim 1, line 23 recites “L' represents O, S, NR<sub>6</sub>, or L-(NR<sub>6</sub>-L)<sub>p</sub>”, L' cannot be L-(NR<sub>6</sub>-L)<sub>p</sub>, since L' is a divalent group whereas L is a monovalent group.

Dependent claims 2-35 and 37-52 are rejected for the same reasons.

Claims 3, 7 and 34 recite -L'-(SiR<sub>4</sub>R<sub>5</sub>L')<sub>n</sub>-SiR<sub>1</sub>R<sub>2</sub> as an option for R<sub>4</sub> and R<sub>5</sub>, these claims are unclear for the same reason stated above.

Claims 22, and 48-50 recite the limitation “wherein L represents -(CH<sub>2</sub>)<sub>n</sub>-”. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 recites the limitation “wherein the solvent forms a heterogeneous low boiling azeotrope with the distilled acid product” in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 28 recites “wherein the molar ratio of the reactive groups present in the polyacyloxysilyl derivative acid is between 1:100 and 100:1”. It is unclear whether this ratio is between a set of reactive group to another set of reactive group within the polyacyloxysilyl derivative acid, or that the ratio is between the reactive groups of the polyacyloxysilyl derivative acid to other reactants of the composition.

Claim 34 recites “independently selected from alkyl, aryl, alkoxyl, ...or aralkyloxy radicals”; the underlined “or” should be changed to “and”. Claim 34 further recites that

Art Unit: 1796

R<sub>1</sub> or R<sub>2</sub>/R<sub>4</sub> or R<sub>5</sub> may independently be an –O-C(O)-L- group. It is unclear what limitation the applicants try to set because “may” is used instead of “is”, moreover, –O-C(O)-L- is a divalent group whereas R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>5</sub> are monovalent groups.

Claims 37-39 and 44 recite “prepared or obtainable by a process”, the use of the words “obtainable” and “a” make the claims obscure.

8. Upon correcting the above errors in the claims, the applicants should make appropriate changes in the specification.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLATUNDE S. OJURONGBE whose telephone number is (571)270-3876. The examiner can normally be reached on Monday-Thursday, 7.15am-4.45pm, EST time, Alt Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Randy Gulakowski can be reached on (571)272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.S.O.

/Randy Gulakowski/  
Supervisory Patent Examiner, Art Unit 1796